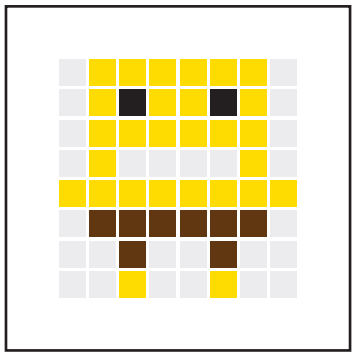
WORKSHEET W004

COLORS

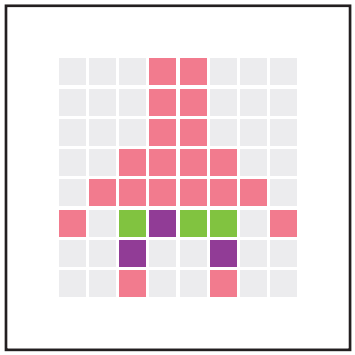
This worksheet is about colors.

EXERCISE

Create an animation with multi-color images. Pay attention to the RGB composition of each color you select.
It will appear if you hold the mouse pointer over a color in the color palette for a while.



For example, you can create pixel images of cartoon characters.

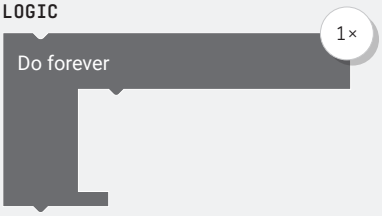


Our proposed solution includes the Spongebob SquarePants figures.

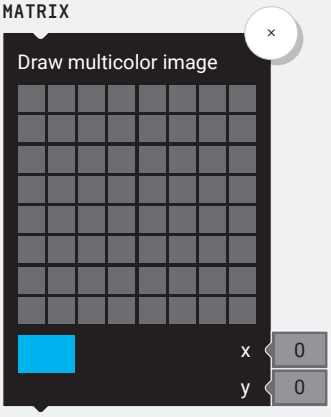
HINT

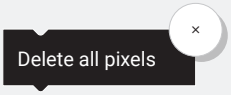
Proceed in the same way as for the worksheet «Animation», use instead from «Draw monochrome image» blocks the «Draw multicolor image» blocks.

LOGIC

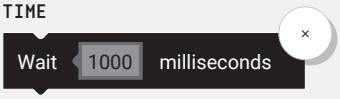


MATRIX





TIME



PARTS LIST
LIST OF BLOCKS TO BE USED

LEVEL EASY

ADDITIONAL TASK:

Use the «Draw monochrome image» block again and also test the «Set pixel color» blocks.

DESIGNED IN LIEBEFELD/BERN

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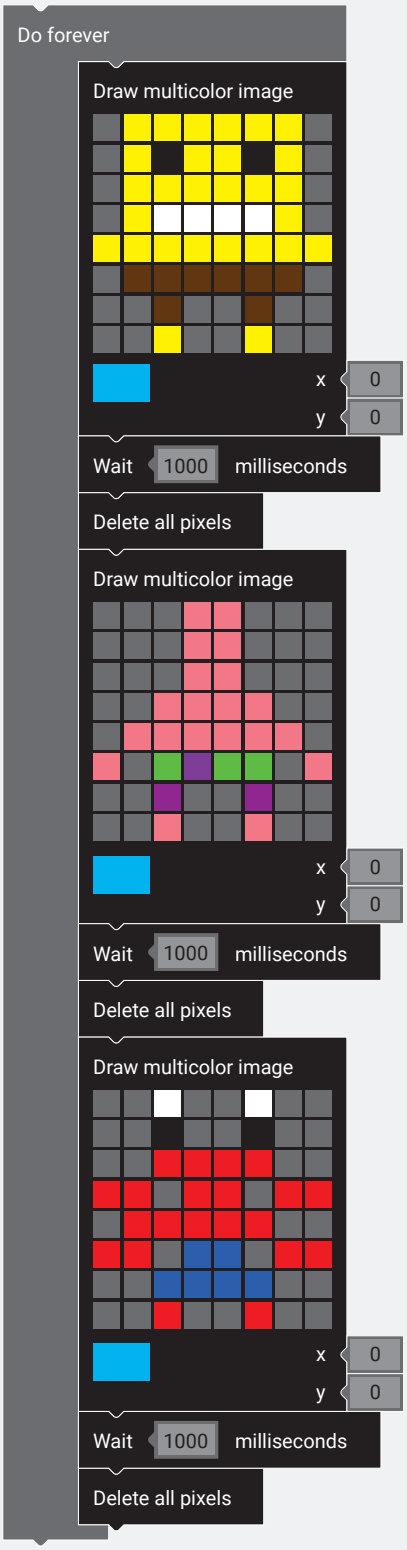
SOLUTION

PROPOSED SOLUTION



TEACHER COMMENT

WORKSHEET W004

COLORS

Learning objective:
Capacity to understand RGB colors. At this point, we recommend a theory block on the subject of „additive color mixing“.

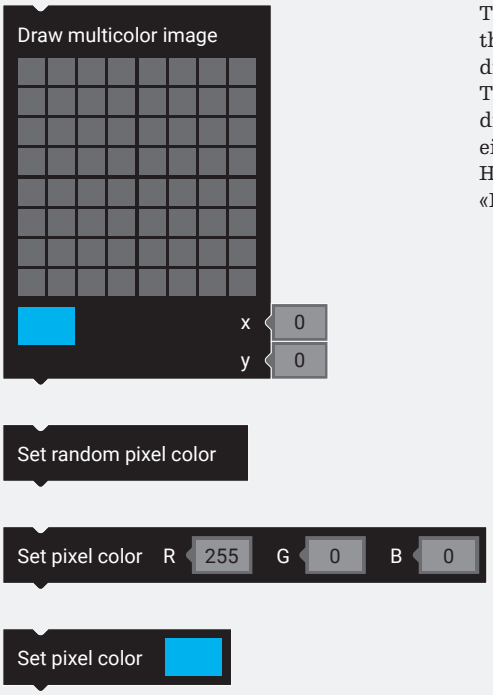
WHAT TO DO

1.
First the «Do forever» loop is needed again. All blocks must be positioned in this loop.

2.
Then the «Draw multicolor image» block is set, waited for a second and then all pixels are deleted.

3.
This step is repeated for each image you want to draw.

NEW COMMANDS



These are the different color blocks. With the «Draw multicolor image» block you can draw directly with colored pixels.
The «Set pixel color» blocks are used to draw all subsequent drawing blocks in either a random or specific color.
However, these blocks have no effect on the «Draw multicolor image» block.

ADDITIONAL INFORMATION: COLORS

The colors can be determined with the RGB value. RGB stands for red, green and blue. The intensity of each color can be specified with a value between 0 and 255. If all colors shine at maximum, white will be generated (keyword: «Additive color mixing»).

RGB: 0-255:
Here you can see the color gradient caused by the different RGB values.